

REMARKS

Summary of the Office Action & Formalities

Claims 7, 9-11, 15, 18 and 19 are all the claims pending in the application. By this Amendment, Applicant is amending claims 7, 10, 11, 15, 18, and 19, and adding new claims 20-22. No new matter is added.

Applicants thank the Examiner for acknowledging their claim to foreign priority and for confirming that the certified copy of the priority document was received.

Claims 9, 10, and 18 are rejected under 35 U.S.C. § 112, second paragraph, for the reason set forth at page 2 of the Office Action. Applicant's amendments to the claims address this rejection and correct minor typographical errors and/or omissions.

Additionally, the Applicant has amended the claims to clarify the term "primary rotational direction," which was originally introduced in the parent application in response to the Examiner's Section 112 rejection based on the original language, "a tire rotating direction side." Specifically, the Applicant has amended the claims to recite the "tire forward rotational direction at the ground-contact configuration." Applicant notes that no specific directionality is required in the tire of the present invention covered by the pending independent claims. Rather, the reference to "tire primary rotational direction," now clarified to be the "tire forward rotational direction at the ground-contact configuration," refers to the direction "R" (see, e.g., Fig. 2), which is always opposite to the tire rotational direction at the vertically top portion of the tire. Therefore, the clarification unequivocally refers to a specific direction opposite to the vehicle's forward moving direction.

Claims 7, 9-11, 15, 18, and 19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,283,134. Applicant is filing a terminal disclaimer herewith obviating this rejection.

The prior art rejections are summarized as follows:

1. Claims 7, 9-11, 15, 18, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japan '204 (JP 2-24204) in view of Europe '300 (EP 391300) and, optionally, Japan '704 (JP 1-106704).

Claim Rejections - 35 U.S.C. § 103

Claims 7, 9-11, 15, 18, and 19 Over Japan '204 Europe '300 And, Optionally, Japan '704.

In rejecting claims 7, 9-11, 15, 18, and 19 over Japan '204 in view of Europe '300 and, optionally, Japan '704, the Examiner essentially reiterates the grounds of rejection set forth in the parent '642 application, including the positions set forth in the March 1 and February 7, 2001 Advisory Actions in the '642 application.

Applicant maintains that the Examiner has incorrectly construed the scope and content of the prior art and that the rejection set forth in the November 20, 2002, Office Action represents an impermissible and non-obvious extrapolation of the art when considered in its entirety.

To establish a *prima facie* case of obviousness, the prior art references when combined must teach or suggest all the claim limitations. See Manual of Patent Examining Procedure ("MPEP") at Section 2143. Applicant submits that the current grounds of rejection fail to meet this criteria. That is, even if one skilled in the art were to combine the applied references as

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argued by the Examiner, the resulting structure would not have all the limitations of Applicant's claimed invention.

First, Applicant notes that there is general agreement as to the teachings of Japan '204 relative to the presence of the sipes 3 as defined by the Examiner in the paragraph bridging pages 2-3 of the November 20, 2002 Office Action. In particular, the Examiner correctly acknowledges that the sipes in Japan '204 are only aligned relative to the leading edge contour, not the trailing edge as required by the pending claims.

To make up for this deficiency in the disclosure of Japan '204, the Examiner attempts to rely on EP '300. To the extent that the Examiner relies on EP '300 as generally disclosing a symmetrical ground-contact footprint, Applicant is in agreement. Furthermore, the Examiner's position that the ground-contact area in Japan '204 would also be symmetrical is not traversed. See Office Action of November 20, 2002, at pages 3-4. That is, the leading edge contour line and the trailing edge contour line would define a symmetrical footprint. However, this is only true to the extent that the tread pattern is ignored, since the tread patterns of the tires disclosed in Japan '204 are **directional (i.e., uni-directional)**. Accordingly, the sipes in Japan '204 are always aligned only relative to the leading edge contour line, which one skilled in the art determines irrespective of how the directional tire is actually mounted.

In the current grounds of rejection, the Examiner states: "[i]n Japan '204, **the sipes are oriented substantially parallel to an edge of the footprint**. This edge can be opposite a tire primary rotating direction depending on how the tire is mounted to the vehicle. Hence, Japan '204 substantially discloses the claimed invention." Office Action at page 2. Applicant

respectfully submits that this position ignores the directionality of the tire disclosed in Japan '204.

In Japan '204, each block is provided with a plurality of cuts 3 substantially parallel to the grounding front edge 4 of the tire. This sipe configuration makes clear that each block of the tire tread in Japan '204 is simply a continuity of numerous front edges parallel to the grounding front edge 4, such that no trailing edge as defined in the current claims can exist. Accordingly, the concept of the orientation of a trailing edge with respect to the footprint is lacking in this reference.

The Examiner's position that the tire of Japan '204 can be rotated in an opposite direction, such that the trailing sipe in each block (i.e., the sipe within each block that contacts the ground last) would be oriented parallel to the trailing edge of the footprint (i.e., ground-contact configuration), is contrary to the explicit disclosure in Japan '204 of a directional tire. One skilled in the art readily understands that the tire disclosed in Japan '204 has only one forward direction, and that this forward direction dictates that the cuts 3 are oriented parallel to the forward edge of the ground-contact configuration. Contrary to the Examiner's position, it is not necessary to mount the tire of Japan '204 on a vehicle before it can have a forward rotational direction at the ground-contact configuration, since the directionality of the tire of Japan '204 is fixed and predetermined. Therefore, Japan '204 explicitly teaches away from Applicant's invention.

Again, the relevant question is whether the inclination of the cuts in Japan '204 are inclined relative to the trailing edge of the ground-contact configuration. The Examiner has

already acknowledged that these cuts are inclined relative to the leading edge of the ground-contact configuration. Hypothetically mounting the tire on the vehicle in the reverse (i.e., improper) orientation is not relevant to the inquiry, since one skilled in the art understands that the forward rotational direction at the ground-contact configuration for a directional (i.e. uni-directional) tire is a fixed and predetermined direction irrespective of whether or not the tire is properly mounted on a vehicle. Stated otherwise, a directional tire can only have a single forward rotational direction at the ground-contact configuration.

Moreover, Japan '204 does not provide any motivation to have the cuts inclined in a direction opposite to forward rotational direction at the ground-contact configuration. Rather, the reference shows consistently in all figures the inclination is in a direction opposite to that defined by Applicant. Indeed, the disclosure of Japan '204 is explicit about the cut orientation with respect to the forward edge of the ground-contact configuration, but is entirely silent on the subject of the trailing edge. In this respect too, Japan '204 teaches away from Applicant's claimed invention and, thus, provides strong evidence of non-obviousness. See, e.g., In re Hedges, 228 USPQ 685, 687 (Fed. Cir. 1986). See also MPEP § 2141, which mandates that "the references must be considered as a whole," and therefore requires the Examiner to consider and confront those teachings of the applied art that lead away from the claimed invention. Thus, while the Examiner is correct that the footprint of the tire disclosed in Japan '204 would be symmetrical, the logical conclusion flowing from that condition is that every cut in Japan '204 would still be inclined relative to the arrow of Figure 1, that is to the leading edge. Applicant's

claims define a clearly different condition from that taught or suggested in its entirety by the prior art.

The Examiner has already indicated in the prosecution of the parent '642 application that "with respect to the allowable subject matter, it is emphasized that Japan '204 teaches sipes, each of which is parallel to only one edge of a ground-contact configuration at a same axial distance on the equatorial plane and fails to teach oppositely inclined sipes." Office Action of October 11, 2000 in the '642 application at page 5. Applicant agrees. Japan '204 does not teach the use of oppositely inclined sipes relative to the tire forward rotational direction at the ground contact configuration. Again, when this direction is predetermined, as in the case of the directional tire, the leading and the trailing edges are fixed. The inclination of the sipe relative to those contour lines is, therefore, also fixed. Applicant's claims, thus, set forth exactly what the Applicant believes the Examiner has held to be allowable subject matter. Stated differently, Applicant maintains that the patentability of the invention can be established without defining the presence of both first and second sipes, but rather by specifying clearly the relationship of a sipe relative to the forward rotational ground-contact configuration. Given that the Examiner has acknowledged correctly the deficiencies of Japan '204, and because the prior art additionally shows and defines what the forward rotational direction at the ground contact configuration is, there is no ambiguity concerning the scope of allowable subject matter here or the clear delineation between the claims and the prior art.

Claims 7, 9, 10, and 15 are patentable at least by reason of their respective dependencies. Furthermore, regarding claims 9 and 10, which recite that the "sipe is formed in a tire transverse

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direction inner side of each of the blocks at the shoulder sides,” in JP ‘204, the sipes extend along the entire width of each of the blocks, not the inner side of the blocks as claimed.

Therefore, claims 9 and 10 are allowable for this reason as well.

For additional claim coverage merited by the scope of the present invention, Applicant is adding new claims 20-22. Claims 20 and 21 are believed to be allowable by reason of their respective dependencies and the additional limitations recited therein. Claim 22 is believed to be allowable, since it recites a vehicle having a tire as in claim 18.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant is submitting herewith an Excess Claim Fee Payment Letter with fee.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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23373

CUSTOMER NUMBER

Date: July 21, 2003